

**COMMONWEALTH OF MASSACHUSETTS**

**SUFFOLK, ss.**

**Building Code Appeals Board  
Docket No. 10-878**

\_\_\_\_\_  
Shaul Perry, )  
Appellant )  
v. )  
Town of Amherst, )  
Appellee )  
\_\_\_\_\_ )

**BOARD'S RULING ON APPEAL**

**Introduction**

This matter came before the State Building Code Appeals Board ("Board") on Appellant's appeal filed pursuant to G.L. c.143, §100 and 780 CMR 122.1. In accordance with 780 CMR 122.3 the Appellant petitioned the Board for variance from voice/alarm communication requirements and certain visual and audible notification requirements of the 7<sup>th</sup> Edition of 780 CMR (the "Code"), Section 903.2.8.

A Hearing relative to the appeal was convened on May 6, 2010. The Appellant and others defending the appeal were present. The Appellee, along with the Assistant Fire Chief of the Town of Amherst, likewise were present. All witnesses were duly sworn.

**Exhibits**

The following Exhibits were accepted into evidence at the hearing on this matter without objection and reviewed by the Board:

Exhibit 1: State Building Code Appeals Board appeal application form with numerous attachments, dated April 1, 2010.

**Findings of Fact**

The Board bases the following findings upon the exhibits identified above and the testimony presented at the hearing. There is substantial evidence to support the following findings:

1. The Sunwood Pines Project has been a long planned development, started in 2002 and with 4 of the 5 buildings constructed under the 6<sup>th</sup> Edition of the State Building Code. The 5<sup>th</sup> building was delayed due to economic conditions but was fully intended to be completed under the 6<sup>th</sup> Edition of the Code / evidence was presented demonstrating that all 5 buildings had been earlier designed to be in conformance with requirements of the 6<sup>th</sup> Edition Code.
2. The Appellant more recently sought a building permit to construct the 5<sup>th</sup> building but in the interim, the 7<sup>th</sup> Edition of the Code has come into full force and for the building

proposed constructed, would require a full NFPA 13 fire sprinkler system, whereas under the 6<sup>th</sup> Edition Code, the required sprinkler system, for a building of no more than 3 dwelling units, would have been allowed to be an NFPA 13D sprinkler system and for Residential USE buildings of 4 or more dwelling units and which are no greater than 4 stories in height, an NFPA 13R sprinkler system would have been required.

3. On February 18, 2010, the Appellee issued a letter of findings of noncompliance, noting that a Chapter 9 Narrative had yet to be filed per 901.7 (inclusive) and that since the proposed Residential building would be > 12,000 sq. ft. in aggregate area, a full NFPA 13 fire sprinkler system would be required per Code Section 903.2.8.
4. On February 18, 2010, HFP Fire Sprinkler, Inc., informed the Appellant, via letter report that town water supply pressure was less than the demand supply pressure required for the necessary NFPA 13 Sprinkler system and that utilizing a fire pump would essentially bring the residual pressure of the town water supply to 0 psi, assuming certain conditions regarding available water for other uses.
5. On April 1, 2010, the Appellant filed for Building Code Appeal, with the State Building Code Appeals Board seeking relief from the 7<sup>th</sup> Edition, 780 CMR, Code Section 903.2.8 cited and filing defense for the variance requested.
6. The Building Code Appeal Hearing was held on May 6, 2010 in Taunton, Massachusetts.

### **Code Analysis**

The building at interest is a proposed, new construction 4-unit R-2 USE. Building Construction Type is reported as Type VA; the total building area is reported as 18,267 sq. ft. and the building total height is reported as 32 ft. The building is proposed to be divided into quarters via three 2-hour fire separation walls.

The Appellant sought relief from the requirements of Code sections 903.2.8.

In his appeal, the Appellant provided a Report, titled: "BBRS State Building Code Appeals Board Appeal Supporting Documentation" (hereafter referred to as the Report), prepared by Rybak Engineering, Inc. and dated April 1, 2010 and, in part, wherein, it is recognized that under the 7<sup>th</sup> Edition of the Code, a full NFPA 13 fire sprinkler system is required.

The Report goes on to note that the original development had been designed for NFPA 13D sprinkler systems and that an existing 1 ½ inch copper service had already been earlier installed and supplied from an 8 inch street main.

The Report also noted that moving to a full NFPA 13 sprinkler system creates a hardship in that the public water supply to the site is marginal and would require a fire pump and dry system to provide full attic protection but supplemental reports to this main Report also note that sprinkler demand pressure is greater than town water supply pressure and that the use of a fire pump to augment pressure would likely result in lowering town supply pressure to 0 psi, assuming certain assumptions about total water use on the subject site.

The Appellant, via the supporting reports, testified in lieu of a full NFPA 13 sprinkler system, an NFPA 13R sprinkler system would be installed and such proposed sprinkler upgrade would:

- (1) Be significantly better than the present sprinkler protection provided in the existing buildings on site.

- (2) Additional sprinkler coverage in several areas including garages and front porches would be achieved.
- (3) Design flow rates would be doubled.
- (4) A fire department connection is intended added.
- (5) Fire sprinkler protection in all closets, in excess of coverage required by an NFPA 13R system would be provided.
- (6) Three, 2-hour fire separation walls, dividing the building into separated quarters would be constructed, with such walls carried to the underside of the roof, consequently reducing potential attic fire spread.

The Appellant further testified that exterior siding of the proposed building would be of the fiber-cement board siding type, thus measurably reducing potential exterior fire from spreading from the ground up the side of the building.

The Appellee testified that the Building Department was not opposed to the proposed variance, given the upgrades being offered by the Appellant, as part of the variance request.

The Amherst Fire Department testified that through an earlier oversight, the original 4 buildings already constructed actually contained "hybrid" NFPA 13D systems as there should have been NFPA 13R systems in such buildings anyway and therefore the subject fifth building would likewise have been required designed to have an NFPA 13R system anyway (it was stated that the Town of Amherst has adopted MGL c.148 § 26I).

The Amherst Fire Department did, however, note that in discussions with the Town Water Department, the town water supply issue was recognized and that with an NFPA 13 system, imposing a certain water demand, the potential for siphoning back into the potable supply was also acknowledged.

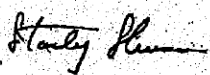
### Conclusion

Relative to variance request from relief from the requirements of the 7<sup>th</sup> Edition Code, Section 903.2.8, requiring a full NFPA 13 fire sprinkler system in the subject building, the Board understood that the present town water supply situation essentially precludes the use of an NFPA 13 system and that the NFPA 13R system being proposed would be enhanced by certain additional coverage identified in the subject reports supporting the appeal.

The Board also understood that the building will be divided into quarters with 2-hour rated walls extending to the underside of the roof and that fiber-cement siding will be utilized, thus reducing the likelihood of exterior fire spread into the building.

On the basis of the testimony and supporting materials provided, the Board voted to **grant** the requested variance to 7<sup>th</sup> Edition Code, section 903.2.8 – this Board vote was unanimous.

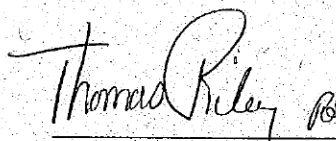
**SO ORDERED.**



Stanley Shuman



Jacob Nunnemacher - Chairman



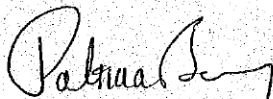
Thomas Riley

DATED: May 27, 2010

*Any person aggrieved by a decision of the State Building Code Appeals Board may appeal to Superior Court in accordance with G.L. c. 30A, §14 within 30 days of receipt of this decision.*

A complete administrative record is on file at the office of the Board of Building Regulations and Standards.

A true copy attest, dated: May 27, 2010

A handwritten signature in cursive script, appearing to read 'Patricia Barry', written over a horizontal line.

Patricia Barry, Clerk